

REMARKS

Claims 15, 16, 18-21, 29 and 31-35 are pending in this application. By this Amendment, claims 15, 31 and 34-35 are amended, and claim 33 is canceled. Reconsideration based on the above amendments and following remarks is respectfully requested.

Applicant gratefully acknowledges that the Office Action indicates that claims 15-16, 18-21, 29, 32 and 34 include allowable subject matter.

Entry of the amendments is proper under 37 CFR §1.116 since the amendments: (a) place the application in condition for allowance (for the reasons discussed herein); (b) do not raise any new issue requiring further search and/or consideration (since the amendments amplify issues previously discussed throughout prosecution); (c) satisfy a requirement of form asserted in the previous Office Action; (d) do not present any additional claims without canceling a corresponding number of finally rejected claims; and (e) place the application in better form for appeal, should an appeal be necessary. The amendments are necessary and were not earlier presented because they are made in response to arguments raised in the final rejection. Entry of the amendments is thus respectfully requested.

I. The Specification Satisfies All Formal Requirements

Although not objected to by the Examiner, the Specification is amended to correct informalities. No new matter has been added.

II. The Claims Satisfy all Formal Requirements

The Office Action objects to claims 15-16, 18-21, 29 and 34-35 because of informalities. Claims 15-16, 18-21, 29 and 34-35 are amended to obviate the objection. Further, claims 15-16, 18-19, 31-32 and 34-35 are amended to correct informalities. Withdrawal of the rejection to claims 15-16, 18-21, 29 and 34-35 is respectfully requested.

III. Claims Satisfy the Requirements of 35 U.S.C. §112, First Paragraph

The Office Action rejects claim 33 under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains or which is mostly narrowly connected to make and/or use the invention. Claim 33 is canceled. Withdrawal of the rejection under 35 U.S.C. §112, first paragraph, is respectfully requested.

IV. Claims Define Allowable Subject Matter

The Office Action rejects claims 31 and 35 under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 4,263,341 to Martyniak (hereinafter "Martyniak") or U.S. Patent No. 6,037,698 to Ueda et al. (hereinafter "Ueda") in view of U.S. Patent No. 6,448,665 to Nakazawa et al. (hereinafter "Nakazawa"). These rejections are respectfully traversed.

Neither Martyniak nor Ueda disclose that a substrate has a thinner portion at the corner portion such that the thinner portion is formed as a depression in the surface of the substrate and the resin covers the depression, as recited in claims 31 and 35. This is disclosed in the specification at page 25, line 12-page 26, line 5.

Instead, Martyniak discloses a printed circuit board 10. The board 10 includes a planar insulating substrate 11 having a circuit including "printed" circuit conductors 13 deposited on one surface 14 of the substrate 11 in a desired pattern. Further, Martyniak discloses a separate printed circuit, including conductor 16 deposited on the opposite surface 17 of the substrate 11. See Figs. 1-2 and col. 3, lines 1-15. Martyniak also discloses semi-circular recesses 23 at the corners of the board 10 along the front surface 14. See Figs. 1-2 and column 3, lines 36-41. However, locating holes 38 are also formed through the substrate 11 at the four corners thereof. See column 5, lines 24-30. Although Martyniak discloses a substrate having a thinner portion at its corner portion, Martyniak pertains to a printed circuit

which belongs to a technical field different from that recited in the claims. Furthermore, the substrate is not covered with a resin as recited in claims 31 and 35.

Ueda discloses an acoustic surface wave device 1 including a package 2 having ceramic substrates 5, 6, 7 wherein ceramic substrate 7 includes an upper wiring layer 37. See Fig. 4, and col. 7, lines 5-10, and col. 8, lines 44-48. Further, Ueda discloses that ceramic substrate 7 has the substrate body 7a having four notches 38a - 38d provided at each corner thereof. See col. 8, lines 4-10. The acoustics of the wave device disclosed in Ueda belongs to a technical field different from that recited in the claims. Further, the substrate disclosed in Ueda does not have a thinner portion at its corner portion.

The Office Action admits that neither Martyniak nor Ueda teach a resin for sealing the semiconductor chip, wherein the outlined surface of the substrate and an edge of the resin are level with each other. However, the Office Action asserts that Nakazawa makes up for the deficiencies of Martyniak and Ueda.

The Office Action asserts that Nakazawa discloses, in Fig. 1, a semiconductor chip 12 and a resin 13 for sealing the semiconductor chip, wherein the outlined surface of the substrate 11 and an edge of the resin 13 are level with each other.

Instead, Nakazawa discloses, in Fig. 1, a semiconductor package 10 including a wiring substrate 11 having a wiring layer on a first face and another wiring layer on a second face, a semiconductor element 12 mounted on the first face of the wiring substrate 11, and a mold resin layer 13 disposed on the first face, where the semiconductor element is being mounted on. See col. 9, lines 21-30. However, Nakazawa does not disclose that the edge surface/outline surface of the substrate 11 has a thinner portion at the corner portion. Further, Nakazawa does not disclose that the outlined surface of the substrate 11 and the edge surface of the resin 13 are aligned with each other. In other words, Nakazawa does not disclose a substrate having its thinner portion at its corner portion.

Nakazawa is completely devoid of these features. Further, neither Martyniak, Ueda or Nakazawa alone or in combination disclose these features. Thus, Nakazawa cannot make up for these deficiencies in Martyniak or Ueda as discussed above.

Further, even if the motivation exists to combine Nakazawa with Martyniak or Ueda, the combination does not suggest a semiconductor device having a substrate having a thinner portion at the corner portion such that the thinner portion is formed as a depression in the surface of the substrate and the resin covers the depression.

Page 2 of the specification of the present application discloses that an advantage of the thinner portion is to reduce the amount of cutting dust when the cutting is done (lines 24-27). The specification also discloses that an advantage of the thinner portion of the substrate is to ensure that part of the substrate is covered by the resin at the corner portion so that no cutting dust is generated by the cutting apart of the substrate. See page 8, lines 2-4. Further, the formation of the thinner portion ensures a depression in the substrate to provide the advantage that there is no seepage of the resin from one face to the opposite face of the substrate when the resin is provided. See specification page 26, lines 15-26.

Since Nakazawa does not disclose any of the advantages of the substrate having a thinner portion, the only motivation to make such a combination exist in Applicant's own disclosure, which causes impermissible hindsight reasoning.

For at least these reasons, it is respectfully submitted that claims 31 and 35 are distinguishable over the applied art. Withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

V. Conclusion

For at least the reasons discussed above, it is respectfully submitted that this Application is in condition for allowance.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,


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